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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/647,997

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Sriram Srinivasan

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10/03/2006

KONRAD RAYNES & VICTOR, LLP

ATTN: IBM54

315 SOUTH BEVERLY DRIVE, SUITE 210

BEVERLY HILLS, CA 90212

EXAMINER

RADTKE, MARK A

ART UNIT

PAPER NUMBER

2165

DATE MAILED: 10/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/647,997	SRINIVASAN ET AL.	
	Examiner	Art Unit	
	Mark A. X Radtke	2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-13 and 21-26 is/are allowed.
- 6) ☒ Claim(s) 1,2,5-7,14,15,18-20,27 and 28 is/are rejected.
- 7) ☒ Claim(s) 3,4,16,17,29 and 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. In response to communications filed on 23 June 2006, claim(s) 1, 4-6, 8, 12, 14, 17-19, 21, 25, 27 and 30 is/are amended per Applicant's request. Therefore, claims 1-30 are presently pending in the application, of which, claim(s) 1, 8, 14, 21 and 27 is/are presented in independent form.

2. In light of Applicant's amendments, the rejection of claims 12-13 and 25-26 under 35 U.S.C. 112 have been withdrawn. Also, the rejection of claims 14 and 21 under 35 U.S.C. 101 have been withdrawn.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 7, 14-15, 20, 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deutsch et al. ("Storing Semistructured Data with STORED",

SIGMOD '99, available online at <http://doi.acm.org/10.1145/304182.304220>) in view of Meltzer et al. (U.S. Pat. No. 6,125,391).

As to claim 1, Deutsch et al. teaches a method for loading input data in one or more hierarchical format input files into a data store (see Abstract), comprising:

generating a map specification that maps input data in the one or more input files to columns of tuples (see pages 435-437, Section 3, "Generating Storage Mappings");

performing processing of the one or more input files to output data tuples, wherein the processing includes parsing and construction using the map specification (see figure 5, step 1); and

serially loading the tuples into the data store while enforcing the order of the data in the one or more input files (see page 432, column 2, "Example Mapping", paragraph 1, "it can be the order in the text representation").

Deutsch et al. does not explicitly teach wherein the processing is performed in parallel.

Meltzer et al. teaches wherein the processing is performed in parallel (see figure 6, block 605 and column 28, lines 61-63).

Therefore, it would have been obvious to one having ordinary skill in the relevant art at the time the invention was made to have modified Deutsch et al. by the teaching of Meltzer et al. because any problem can be parallelized (This is commonly known in the art of computer science as "Gustafson's Law". See "Reevaluating Amdahl's Law" by John L. Gustafson. Originally published in Communications of the ACM 31(5), 1988. pp.

532-533. Available online at

<http://www.scl.ameslab.gov/Publications/Gus/AmdahlsLaw/Amdahls.html>).

As to claims 2, 15 and 28, Deutsch et al., as modified, teaches further comprising:

receiving a physical input file; and

logically dividing the physical input file into multiple sections, wherein each of the multiple sections is an input file (see figure 6, block 605).

As to claims 7 and 20, Deutsch et al., as modified, teaches further comprising wherein the parallel processing is performed by two or more row mappers (see Meltzer et al., figure 6, block 605).

As to claim 14, Deutsch et al. teaches an article of manufacture comprising one of hardware logic implementing logic and a computer readable storage medium including a program for loading input data in one or more hierarchical format input files into a data store, wherein the logic or program causes operations to be performed (see Abstract), the operations comprising:

For the remaining steps of this claim applicant(s) is/are directed to the remarks and discussions made in claim 1 above.

As to claim 27, Deutsch et al. teaches a computer system having at least one program for loading input data in one or more hierarchical format input files into a data store (see Abstract), comprising:

For the remaining steps of this claim applicant(s) is/are directed to the remarks and discussions made in claim 1 above.

5. Claims 5-6 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deutsch et al. as applied to claims 1 and 14 above, and further in view of Oracle ("LOBS: Best Practices", Oracle9i Application Developer's Guide – Large Objects (LOBs), release 2 (9.2), copyright 2002).

As to claims 5 and 18, Deutsch et al. does not explicitly teach loading the tuples without generating SQL commands.

Oracle teaches loading the tuples without generating SQL commands (see page 2, paragraph 4, "direct path load [writes] the data blocks directly to the database files").

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Deutsch et al. by the teaching of Oracle because "the processing overhead of dealing with records is avoided" (see Oracle, page 2, paragraph 1).

As to claims 6 and 19, Deutsch et al., as modified, teaches wherein the tuples output when processing the data from each of the input files are appended to a

separate temporary storage location (see page 4, "LOB Buffering") and further comprising:

when serial loading is interrupted, restarting the serial loading using the tuples in the separate temporary storage locations without reprocessing the one or more input files (See page 4, "Try to commit changes frequently". In the even of an interruption, the commit will fail and the write will be re-attempted. Since the data is buffered, no reprocessing is required.).

Allowable Subject Matter

6. Claims 8-13 and 21-26 are allowed over the prior art made of record. Claims 3-4, 16-17 and 29-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, in light of Applicant's arguments.

Response to Arguments

7. Applicant's arguments filed on 23 June 2006 with respect to the rejected claims in view of the cited references have been fully considered but are moot in view of the new grounds for rejection.

Conclusion

Art Unit: 2165

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications should be directed to the examiner, Mark A. Radtke. The examiner's telephone number is (571) 272-7163, and the examiner can normally be reached between 9 AM and 5 PM, Monday through Friday. If attempts to contact the examiner are unsuccessful, the examiner's supervisor, Jeffrey Gaffin, can be reached at (571) 272-4146.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Customer Service at (800) 786-9199.

maxr


JEFFREY G. GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2165

28 September 2006